

REMARKS

This application has been reviewed in light of the Office Action dated March 30, 2005. The specification has been amended by changing the title of the invention to read "A MANUFACTURING METHOD OF AN IMAGE FORMING APPARATUS " and by updating the status of the parent application, as requested by the Examiner.

Claims 12-43 are pending. Claims 12-43 have been amended to define more clearly what Applicants regard as their invention. Claims 12, 22, 23, 33 and 34 are in independent form. Favorable reconsideration is respectfully requested.

Claims 41-43 were rejected under 35 U.S.C. §112, second paragraph for being indefinite. The amendments to Claims 41-43 render these rejections moot.

Claims 12-21 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 and 30 of U.S. Patent 6,848,961. Claims 22-43 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 and 30 of U.S. Patent 6,848,961 in view of U.S. Patent 5,591,061 (*Ikeda et al.*). Claims 12-17, 19, 22, 24-28 and 30 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-29 of U.S. Patent No. 6,846,213. Claims 20, 21, 23, 31-39 and 41-43 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-29 of U.S. Patent No. 6,846,213 in view of *Ikeda et al.* Claims 18 and 29 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims

13-29 of U.S. Patent No. 6,846,213 in view of U.S. Patent 5,886,864 (*Dvorsky*). Claim 40 was rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-29 of U.S. Patent No. 6,846,213 in view of *Ikeda et al.* and *Dvorsky*. Claim 12 was provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913,542. Claims 13, 14, 19-25, 30-36 and 41-43 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913,542 in view of *Ikeda et al.* Claims 15 and 17 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913,542 in view of *Dvorsky*. Claims 18, 26, 28, 29, 37, 39 and 40 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913,542 in view of *Ikeda et al.* and *Dvorsky*. Claims 15 and 16 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913,542 in view of U.S. Patent 4,897,552 (*Okunuki et al.*). Claims 26, 27, 37 and 38 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/913,542 in view of *Ikeda et al.* and *Okunuki et al.* Claims 12, 22, 23, 33 and 34 were amended to include the steps of removing the vessel from the substrate, and combining a face plate having image forming substances and the

substrate from which the vessel has been removed. As such the rejection of Claims 12-43 has been obviated because none of the claims relied on in the double patenting rejections recites or suggests those features, and the secondary references are not understood to add anything that would be remedial.

Claims 12-14, 19-25, 30-36 and 41-43 were rejected under 35 U.S.C. §102(b) as being unpatentable over JP 08-171849 (*Takahiro et al.*). Claims 12-14, 19-25, 30-36 and 41-43 were rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent 5,591,061 (*Ikeda et al.*). Claims 15, 17, 18, 26, 28, 29, 37, 39 and 40 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Takahiro et al.*, and further in view of U.S. Patent 5,886,864 (*Dvorsky*). Claims 15, 17, 18, 26, 28, 29, 37, 39 and 40 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Ikeda et al.*, and further in view of *Dvorsky*. Claims 15, 16, 26, 27, 37 and 38 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Takahiro et al.*, and further in view of U.S. Patent 4,897,552 (*Okunuki et al.*). Lastly, Claims 15, 16, 26, 27, 37 and 38 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Ikeda et al.* and further in view of *Okunuki et al.*.

Amended claim 12 is directed to a manufacturing method of an image forming apparatus. The method comprises the steps of (a) arranging on a support member a substrate having a conductor and a wiring line connected to the conductor, (b) covering the conductor on the substrate with a vessel except for part of the wiring line, (c) setting a desired atmosphere in the vessel, applying a voltage to the conductor via the part of the wiring line, (d) removing the vessel from the substrate, and (e) combining a face plate

having image forming substances and the substrate from which the vessel has been removed.

Among the notable features of amended claim 12 are the steps of covering the conductor on the substrate with a vessel except for part of the wiring line; setting a desired atmosphere in the vessel; applying a voltage to the conductor via the part of the wiring line; removing the vessel from the substrate; and combining a face plate having image forming substances and the substrate from which the vessel has been removed.

*Takahiro et al.* discloses a method of manufacturing an electron emission element having a conductive film with an electron emitting part between electrodes.

*Ikeda et al.* is directed to an electron-emitting device having a pair of device electrodes and an electroconductive thin film having an electron emitting region arranged between the electrodes.

In Applicants' view, *Takahiro et al.* and *Ikeda et al.* teach combining a face plate and a rear plate (substrate) to form a container, and setting a desired atmosphere in the container and applying a voltage to a wiring line in the container, after the container is formed.

On the other hand, in the present invention a conductor on a substrate is covered with a vessel except for part of a wiring line, a desired atmosphere is set in the vessel and a voltage is applied to the conductor via the part of a wiring line, the vessel is removed from the substrate, in the desired atmosphere, and a face plate having image forming substances and the substrate from which the vessel has been removed are

combined (see, e.g., Claim 12). Notably, the desired atmosphere is set in the vessel and the voltage is applied to the conductor, before combining the face plate and the substrate.

As such, claim 12 is believed patentable over *Takahiro et al.* and claim 12 is also believed patentable over *Ikeda et al.*, because the foregoing features of Claim 12 are not taught or suggested by those references in Applicants' view.

Independent claims 22, 23, 33 and 34, include features very similar to those discussed above for independent claim 12. As such, claims 22, 23, 33 and 34 are also deemed patentable over the references cited for substantially the same reasons as in Claim 12.

A review of the other art of record, including *Dvorsky* and *Okunuki et al.*, has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of *Takahiro et al.* or *Ikeda et al.* discussed above, as a reference against independent claims 12, 22, 23, 33 and 34 discussed herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

The references requested in Section 1 of the Office Action will be forwarded shortly.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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